



SEQUENCE LISTING

4119 Scholler, Nathalie B.
4120 Osis, Mary L.
4121 Hellstrom, Ingegerd
4122 Hellstrom, Karl Erik

4123 SURFACE RECEPTOR ANTIGEN VACCINES

4134 230033.409

4141 US 09/441,411
4142 1999-11-16

4160 16

4170 FastSEQ for Windows Version 4.0

4210 1
4211 19
4212 LNA
4213 Artificial Sequence

4214
4215 PCR primer

4400 1
gtatgccttat ggcttgcaat tgtcagttg

29

4216 2
4217 19
4218 LNA
4219 Artificial Sequence

4220
4221 PCR primer

4400 1
gtatgccttat aaaggaagac ggtctgttc

29

4210 3
4211 19
4212 LNA
4213 Artificial Sequence

4220
4221 PCR primer

4400 3
tgaagcttgg tccagaactt acggaag

27

4210 4

RECEIVED
SEP 24 2002
TECH CENTER 1600/2900

C11-26
 C12-DNA
 C13-Artificial Sequence

C20-
 C23-PCR primer

C40-4
 agatgatat ttcctcaggg tctcac

26

C10-5
 C11-4473
 C12-DNA
 C13-Homo sapiens

C40-5
 aaggjgaggt aacccctggcc ccttttggtcg gggccccgggg cagcccgccgg ccccttccca 60
 gggggccctt tactgcgcgg cgggcccggc ccccaacccct cgcagcaacc cgggcccggc 120
 gcccctccag cggggtccag cgggagccat ggggcccggag cggcagttag caccatggag 180
 ctggggggtt tgtgcggctg ggggtctctc ctggccctct tggccccggg agccggcagg 240
 acccagtggt gcaccggcac agacatgaag ctggggctcc ctggccagtcc cggagcccac 300
 ctggacatgc tcggccaccc ctaccagggc tggcagggtg tgcagggaaa cctggaaact 360
 aactaactgc ccaccaatgc cagctctgtc ttcttgcaag ataccaggga ggtgcagggc 420
 taagtgtcca tggctcacaa ccaagttagg caggctccac tgcagaggct gggattgtg 480
 cgagjcaacc agctcttga ggaacaact ggcctggccg tctagacaa tggagaccgg 540
 ctgaacata ccacccctgt cacaggggcc tcccaggag gctggggga gctgcagctt 600
 cgaagctcca cagagatctt gaaaggagg gtcttgatcc agcggaacc ccagctctg 660
 taccaggaca gatttttctt gaaggacatc tccacaaga acaaccagct ggtctcaca 720
 ctgatagaca ccaaccggct tcgggctctc caccctgtt ctccgatgt caagggtcc 780
 ctgtctgtgg tagaggttc tgaagattgt cagagctga cggccactgt ctgtccgggt 840
 ggtctgtccc gctgcaagg gccaactccc actgaactgt gccatgagca gtgtgtgcc 900
 ggtgcacgg gccccaagg ctctgaactg ctgggctgcc tccacttcaa ccacagtgg 960
 atctgtgag cggactgccc agccctgtt cctacaaca cagacacgtt tgaatccatg 1020
 ccccaaccgg agggccggta tacattcggc gccagctgtg tgaactgctt tccctacaa 1080
 tacctttcta cggacgtggg atccctgacc ctgtctgcc cctgcacaa ccaagaggtg 1140
 acagcagagg atggaacaca ggggtgtgag aagtgcagca agccctgtt ccagctgtg 1200
 tatgttctgg gcatggagca cttgcagag gtgagggcag taccagtg ccataccag 1260
 jagtttctg gctgcaagaa gatctttgg agccctggat tctggccga gagcttjat 1320
 ggggacccag cctcccaacc tggcccgctc cagccagagg agctccaagt gtttgagact 1380
 ctgggaagaga tccaggtta cctatacacc tcagcatgg ccggacagct gctgacctc 1440
 agctcttcc agaaccctga agtaaccgg ggaagaaatc tgcacaatgg cgcctactcg 1500
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 agtgactgg cctccatcca ccataacacc cactctgtgt tggcgcacc ggtgcctgg 1620
 gaccagctct ttcggaaacc gcaccaagct ctgtccaca ctgccaacc gccagaggac 1680
 gagtgtgtgg gggagggtct ggcctgcaac cagctgtgct cccgaggga ctgctgggt 1740
 ccaggtccca cctagtgtgt caactgcagg cagttcttcc ggggcccagg gtggtggag 1800
 gaatgcbgag tactgcaagg gctcccagg gagtatgtga atgcccagg ctgtttgctg 1860
 tggccacccg agtgcaggg ccagaatggc tcagtgacct gtttcggacc ggaggttgac 1920
 cagtgtgtgg cctgtgcca ctataaggac cctccctctt gggcgcccg ctgcccagc 1980
 ggtgtgaaac ctgaactct ctacatgccc atctgggaat tccagatga ggaggggcga 2040
 tggcagcctt gccccatcaa ctgcacccac tctgtgtgg aactggatga caagggtctg 2100
 ccggccagag agagagccag cctctgacg tccatcatct ctgggttgtt tggcattctg 2160
 ctgggtctgg tcttggggt ggtctttgg atcccatca agcgacggga gcagaagatc 2220
 cggaagtaca cgtgctggag actgctgac gaaacggagc tgggtggacc gctgacacct 2280

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agcggagcga tgcacaacca ggcgcagatg cggatcctga aagagacgga gctgaggaag 2340
gtgaagggtg ttggatcttg cgtttctggc acagtctaca agggcatctg gatccctgat 2400
ggggagaatg tgaataattc agtggccatc aaagtgttga gggaaaaaac atcccccaaa 2460
gcaacaaaag aaattcttaga cgaagcatac gtgatggctg gtgtgggctc cccatatgtc 2520
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tatggctgoc tortagacca tgtccgggaa aacccgggac gcttgggctc ccaggacctg 2640
ctgaactggt gtatgcagat tgcacaaggg atgagctaac tggaggatgt ggggtctgta 2700
cacagggaat tggcggctcg gaactgtctg gtcaagagtc ccaaccatgt caaaattaca 2760
gaactcgggg tggctcggct gctggacatt jacagacag agtaccatgc agatgggggc 2820
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agtgatgtgt ggagttatgg tgtgaactgt tgggagctga tgacttttgg ggcacaaact 2940
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cagcccccca tctgcaacct tgatgtctac atgacatgg tcaaatgttg gatgattgac 3060
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gtccaccaca ggcacccgag ctccatctacc aggagtgggg gtggggacct jacaactaggg 3360
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tccgatgtat ttgatgggga cctgggaatg ggggcagcca aggggttga aagcctcccc 3480
acacatgacc ccagccctct acagcggtao agtgaggacc ccacagtacc cctgcccctc 3540
gagactgatg gtaacttgc ccccttgacc tgcagccccc agcctgaata tctgaaccag 3600
ccagatgttc ggccccagcc cctctcgccc ccagagggcc ctctgctgc tgcctgacct 3660
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gaactttttg cctctggggg tgccttgag aaaccccgagt acctgacacc ccaggggagg 3780
gctgcccctc agcccccacc tctctctgcc ttcagccag ccttcgacaa cctctattac 3840
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gcagagaacc cagagtaact ggtcttgga gtgcctgtgt gaaccagaag gccaagtccg 3960
cagaagccct gatgtgtct cagggagcag ggaagjcttg acctctgctg gcataagag 4020
gtgggagggc cctccagacc cctccagggg aacctgcbat gccaggaaac tgtcctaagg 4080
aaccttccct cctgcttgag tccccagatg gctgggaagg gtccagccctc gttggagag 4140
gaacagcact ggggaggtct tctggactct gaggccctgc ccaatgagac tctagggtcc 4200
agtggatgoc acagcccagc ttggcccttt ccttcagat cctgggtact gaaagcctta 4260
gggaagctgg cctgagaggg gaaagggccc taagggagtg tctaaagaac aaagcgacc 4320
attccagagc tctccctgaa acctagtaet gccccccatg aggaaggaa agcaatgggt 4380
tcagttacca ggccttctac agagtgttt tctgttagt tcttactttt tctgtttgt 4440
ttttttaag atgaaataaa gaaccagggg gag 4470

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0210: 6

0211: 1255

0212: PRT

0213: Homo sapiens

0400: 6

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu

1 5 10 15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys

20 25 30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His

35 40 45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr

50 55 60

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val

65 70 75 80

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
 85 90 95
 Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
 100 105 110
 Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro
 115 120 125
 Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser
 130 135 140
 Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln
 145 150 155 160
 Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
 165 170 175
 Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys
 180 185 190
 His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser
 195 200 205
 Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys
 210 215 220
 Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys
 225 230 235 240
 Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu
 245 250 255
 His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val
 260 265 270
 Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg
 275 280 285
 Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu
 290 295 300
 Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln
 305 310 315 320
 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys
 325 330 335
 Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Gln
 340 345 350
 Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys
 355 360 365
 Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp
 370 375 380
 Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe
 385 390 395 400
 Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro
 405 410 415
 Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg
 420 425 430
 Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu
 435 440 445
 Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Gln Leu Gly Ser Gly
 450 455 460
 Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val
 465 470 475 480
 Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr
 485 490 495
 Ala Asn Arg Pro Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His
 500 505 510

Gln Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys
 515 520 525
 Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Val Glu Glu Cys
 530 535 540
 Arg Val Leu Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys
 545 550 555 560
 Leu Pro Cys His Pro Glu Cys Gln Pro Gln Asn Gly Ser Val Thr Cys
 565 570 575
 Phe Gly Pro Glu Ala Asp Gln Cys Val Ala Cys Ala His Tyr Lys Asp
 580 585 590
 Pro Pro Phe Cys Val Ala Arg Cys Pro Ser Gly Val Lys Pro Asp Leu
 595 600 605
 Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu Gln Gly Ala Cys Gln
 610 615 620
 Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys
 625 630 635 640
 Gly Cys Pro Ala Glu Gln Arg Ala Ser Pro Leu Thr Ser Ile Ile Ser
 645 650 655
 Ala Val Val Gly Ile Leu Leu Val Val Val Leu Gly Val Val Phe Gly
 660 665 670
 Ile Leu Ile Lys Arg Arg Gln Gln Lys Ile Arg Lys Tyr Thr Met Arg
 675 680 685
 Arg Leu Leu Gln Glu Thr Glu Leu Val Glu Pro Leu Thr Pro Ser Gly
 690 695 700
 Ala Met Pro Asn Gln Ala Gln Met Arg Ile Leu Lys Glu Thr Glu Leu
 705 710 715 720
 Arg Lys Val Cys Val Leu Gly Ser Gly Ala Phe Gly Thr Val Tyr Lys
 725 730 735
 Gly Ile Trp Ile Pro Asp Gly Gln Asn Val Lys Ile Pro Val Ala Ile
 740 745 750
 Lys Val Leu Arg Glu Asn Thr Ser Pro Lys Ala Asn Lys Glu Ile Leu
 755 760 765
 Asp Glu Ala Tyr Val Met Ala Gly Val Gly Ser Pro Tyr Val Ser Arg
 770 775 780
 Leu Leu Gly Ile Cys Leu Thr Ser Thr Val Gln Leu Val Thr Gln Leu
 785 790 795 800
 Met Pro Tyr Gly Cys Leu Leu Asp His Val Arg Gln Asn Arg Gly Arg
 805 810 815
 Leu Gly Ser Gln Asp Leu Leu Asn Trp Cys Met Gln Ile Ala Lys Gly
 820 825 830
 Met Ser Tyr Leu Glu Asp Val Arg Leu Val His Arg Asp Leu Ala Ala
 835 840 845
 Arg Asn Val Leu Val Lys Ser Pro Asn His Val Lys Ile Thr Asp Phe
 850 855 860
 Gly Leu Ala Arg Leu Leu Asp Ile Asp Glu Thr Glu Tyr His Ala Asp
 865 870 875 880
 Gly Gly Lys Val Pro Ile Lys Trp Met Ala Leu Gln Ser Ile Leu Arg
 885 890 895
 Arg Arg Phe Thr His Gln Ser Asp Val Trp Ser Tyr Gly Val Thr Val
 900 905 910
 Trp Gln Leu Met Thr Phe Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala
 915 920 925
 Arg Gln Ile Pro Asp Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro
 930 935 940

Pro Ile Cys Thr Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp Met
 945 950 955 960
 Ile Asp Ser Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser Glu Phe
 965 970 975
 Ser Arg Met Ala Arg Asp Pro Gln Arg Phe Val Val Ile Gln Asn Glu
 980 985 990
 Asp Leu Gly Pro Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu
 995 1000 1005
 Leu Gln Asp Asp Asp Met Gly Asp Leu Val Asp Ala Glu Glu Tyr Leu
 1010 1015 1020
 Val Pro Gln Gln Gly Phe Phe Cys Pro Asp Pro Ala Pro Gly Ala Gly
 1025 1030 1035 1040
 Gly Met Val His His Arg His Arg Ser Ser Ser Thr Arg Ser Gly Gly
 1045 1050 1055
 Gly Asp Leu Thr Leu Gly Leu Gln Pro Ser Glu Gln Glu Ala Pro Arg
 1060 1065 1070
 Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly
 1075 1080 1085
 Asp Leu Gly Met Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His
 1090 1095 1100
 Asp Pro Ser Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu
 1105 1110 1115 1120
 Pro Ser Glu Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln
 1125 1130 1135
 Pro Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro
 1140 1145 1150
 Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu
 1155 1160 1165
 Arg Pro Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val
 1170 1175 1180
 Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln
 1185 1190 1195 1200
 Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala
 1205 1210 1215
 Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala
 1220 1225 1230
 Pro Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr
 1235 1240 1245
 Leu Gly Leu Asp Val Pro Val
 1250 1255

0210: 7

0211: 729

0212: INA

0213: *Trichophila melanogaster*

0400: 7

gcatttcag agggctacot cactgtctgc tcttcgact atctttcggg aaattttgac	60
accgggttgt ttgtgggcac catcttcttt ttacgtcttg tgtgtccac gctgatgac	120
ctttactact actgcacat cgtgggcac gtcttcagcc acgaaaagg cctacggpag	180
caggccaaga aaatgaact ggagtgcgt cctccaatg tggacaagag caaggagag	240
gggagatag ggattgcgaa ggcggctat accatctgt tctgtttctt cgtgtcgtgg	300
acgcctaac gcgtaatgt cgtgatcgg gattcgggg ataagagtct gcttacaaa	360
ggagccacga tgatcccggc ctgcacctgc aaactggtgg cgtgcataga cccattctc	420

tatgcacataa gtcacccag ataccggttg gagctgcaga agcgtgtgcc ctggctggga 480
 gtcaacgaaa agtctgggga gatctcttcg gcgcagtcca cgaccacca ggagcagcaa 540
 cagactaccg ctgcatagaa ccaaggacaa ctctactcta agacaaactga ccattgtaaca 600
 tgaagccaa ggaagaaagta taaatgpcg acaacgaaac tgtataacat taattttata 660
 attttagtg tgacattctt gatttgaaa taaataaata gtaatttatt gaaaacgaag 720
 tagaaaatg 729

0210 - 2

0211 - 373

0212 - PRT

0213 - *Drosophila melanogaster*

0400 - 3

Met Glu Pro Leu Cys Asn Ala Ser Glu Pro Pro Leu Arg Pro Glu Ala
 1 5 10 15
 Arg Ser Ser Gly Asn Gly Asp Leu Gln Phe Leu Gly Trp Asn Val Pro
 20 25 30
 Pro Asp Gln Ile Gln Tyr Ile Pro Glu His Trp Leu Thr Gln Leu Glu
 35 40 45
 Pro Pro Ala Ser Met His Tyr Met Leu Gly Val Phe Tyr Ile Phe Leu
 50 55 60
 Phe Cys Ala Ser Thr Val Gly Asn Gly Met Val Ile Trp Ile Phe Ser
 65 70 75 80
 Thr Ser Lys Ser Leu Arg Thr Pro Ser Asn Met Phe Val Leu Asn Leu
 85 90 95
 Ala Val Phe Asp Leu Ile Met Cys Leu Lys Ala Pro Ile Phe Asn Ser
 100 105 110
 Phe His Arg Gly Phe Ala Ile Tyr Leu Gly Asn Thr Trp Cys Gln Ile
 115 120 125
 Phe Ala Ser Ile Gly Ser Tyr Ser Gly Ile Gly Ala Gly Met Thr Asn
 130 135 140
 Ala Ala Ile Gly Tyr Asp Arg Tyr Asn Val Ile Thr Lys Pro Met Asn
 145 150 155 160
 Arg Asn Met Thr Phe Thr Lys Ala Val Ile Met Asn Ile Ile Ile Trp
 165 170 175
 Leu Tyr Cys Thr Pro Trp Val Val Leu Pro Leu Thr Gln Phe Trp Asp
 180 185 190
 Arg Phe Val Pro Glu Gly Tyr Leu Thr Ser Cys Ser Phe Asp Tyr Leu
 195 200 205
 Ser Asp Asn Phe Asp Thr Arg Leu Phe Val Gly Thr Ile Phe Phe Phe
 210 215 220
 Ser Phe Val Cys Pro Thr Leu Met Ile Leu Tyr Tyr Tyr Ser Gln Ile
 225 230 235 240
 Val Gly His Val Phe Ser His Glu Lys Ala Leu Arg Glu Gln Ala Lys
 245 250 255
 Lys Met Asn Val Glu Ser Leu Arg Ser Asn Val Asp Lys Ser Lys Glu
 260 265 270
 Thr Ala Glu Ile Arg Ile Ala Lys Ala Ala Ile Thr Ile Cys Phe Leu
 275 280 285
 Phe Phe Val Ser Trp Thr Pro Tyr Gly Val Met Ser Leu Ile Gly Ala
 290 295 300
 Phe Gly Asp Lys Ser Leu Thr Gln Gly Ala Thr Met Ile Pro Ala
 305 310 315 320
 Cys Thr Cys Lys Leu Val Ala Cys Ile Asp Pro Phe Val Tyr Ala Ile

325 330 335
 Ser His Pro Arg Tyr Arg Leu Glu Leu Gln Lys Arg Cys Pro Trp Leu
 340 345 350
 Gly Val Asn Glu Lys Ser Gly Glu Ile Ser Ser Ala Gln Ser Thr Thr
 355 360 365
 Thr Gln Glu Gln Gln Gln Thr Thr Ala Ala
 370 375

#10 - 9
 #11 - 191
 #12 - PRT
 #13 - Homo sapiens

#400 - 9
 Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu
 1 5 10 15
 Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys
 20 25 30
 Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His
 35 40 45
 Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr
 50 55 60
 Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val
 65 70 75 80
 Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
 85 90 95
 Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
 100 105 110
 Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro
 115 120 125
 Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser
 130 135 140
 Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln
 145 150 155 160
 Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
 165 170 175
 Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala
 180 185 190

#10 - 10
 #11 - 1277
 #12 - DNA
 #13 - Homo sapiens

#400 - 10
 gtcatctgct atttttaaac ttccctggaa taatatatgt aatctacttc taataagttt 60
 ttcttattta gcatttttgt ttaaactaat ttataattat ttageccttat ttctccatgt 120
 ttaacttgct ttaaagctca gcactgggtgt ttccagccat ggcttctcca ttttaaggct 180
 attttaattc atttattatt ctggaatata tcccttaata atttatttag gaaggctgtc 240
 tgttggtggt tatttctgtt gcagttgttg ttttcttgcc tgcttggtga catatttcta 300
 ttgacttgac acttaactgg catcttatct aggtagataa tgctaattca aaattctgca 360
 gatattggtc tgttggtttt tgccatttat ggtagtagta gatgccaaagt tgggttttgg 420
 ttctctgtag tcattctgtt ttcattttgt ttttagcttt gcctttggaa tttaaaatgt 480
 tcaaaatgat ttgtctggat gagaatogat tttcataact tttgctttga tacactaaac 540


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agtttgagtt tctagatgat gccattttta attcatacga ggaaatatct tctagtatag      600
tttctgcttg attaattcta tgtttgtctc ttaggacat ctattaattt tataatgctg      650
ccttttttct agacttctgt ttcagaatat togttttcat gaatgtaate cttggctata      700
gtaggaatga aataataaaa gcagtagctt ctgtctgccc tcccttggtta tgcagtcctt      750
acagacatto tccccaccto ccattccccc accccagctc agtgaaacto tccacacttt      800
ggttctggaa attggcaggy ttaggtggct actactccc aatccacato cacaataaat      850
cactttttat tatcttatca aaattgttag aatgcctctt tattctattt tgttctgctg      900
gaggtttggt tttcttttct aattattcta tttcttaggt tttttgaggy aatttcaaga      950
ggggagattt tttattcagg ctcatcttaa cgtcatgctt ggaactcaag ctactgaatt      1000
atatattctt taatacatat agactacgt caatgagttt aaactgcaag gaaagggcta      1050
aattctcttc tcaagtgtgg tcaaaatctg tagagaaaag aggaacagct tctcttaaag      1100
aaagttagct ggttaggtat acagtcattg ccagaggaagg cttgcacagg gtgaaagctt      1150
tgcctctctg ctgctgt

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0210 • 11
 0211 • 356
 0212 • PRT
 0213 • Mus musculus

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0400 • 11
Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
1      5      10      15
Asp Arg Gly Pro His Tyr Lys Ile Leu Leu Pro Leu Pro His Lys Gly
20     25     30
Trp Thr Pro Gly Leu Thr His Asn Ala Ser Leu Tyr Cys Ala Ser Ile
35     40     45
Ile Leu Lys Asn Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val
50     55     60
Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn
65     70     75     80
Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser
85     90     95
Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu
100    105    110
Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys
115    120    125
Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu
130    135    140
His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln
145    150    155    160
Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu
165    170    175
Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln
180    185    190
Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln
195    200    205
Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr
210    215    220
Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu
225    230    235    240
Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val
245    250    255
Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile
260    265    270

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Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr
 275 280 285
 Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val
 290 295 300
 Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg
 305 310 315 320
 Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg
 325 330 335
 Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys
 340 345 350
 Pro Asn Ala Glu
 355

00100: 12
 00110: 356
 00120: PRT
 00130: Mus musculus

04000: 12
 Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
 1 5 10 15
 Asp Arg Gly Pro His Tyr Lys Ile Leu Pro Leu Pro His Lys Gly
 20 25 30
 Pro Thr Pro Gly Leu Thr His Asn Ala Ser Leu Tyr Cys Ala Ser Ile
 35 40 45
 Ile Leu Lys Asn Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val
 50 55 60
 Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn
 65 70 75 80
 Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser
 85 90 95
 Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu
 100 105 110
 Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys
 115 120 125
 Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu
 130 135 140
 His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln
 145 150 155 160
 Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu
 165 170 175
 Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln
 180 185 190
 Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln
 195 200 205
 Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr
 210 215 220
 Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu
 225 230 235 240
 Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val
 245 250 255
 Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile
 260 265 270
 Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr

[illegible]

210. 23

411 · 309

12 · PET

-013 - Mus musculus

-400- 13

Met 1	Asp	Pro	Arg	Cys 5	Thr	Met	Gly	Leu	Ala 10	Ile	Leu	Ile	Phe	Val 15	Thr
Val	Leu	Leu	Ile 20	Ser	Asp	Ala	Val	Ser 25	Val	Glu	Thr	Gln	Ala 30	Tyr	Phe
Asn	Gly	Thr	Ala 35	Tyr	Leu	Pro	Cys 40	Pro	Phe	Thr	Lys	Ala 45	Gln	Asn	Ile
Ser	Leu	Ser	Glu 50	Leu	Val	Val	Phe 55	Trp	Gln	Asp	Gln	Gln 60	Lys	Leu	Val
Leu	Tyr	Glu	His 65	Tyr	Leu	Gly	Thr 70	Glu	Lys	Leu	Asp 75	Ser	Val	Asn	Ala 80
Lys	Tyr	Leu	Gly 85	Arg	Thr	Ser	Phe 90	Asp	Arg	Asn	Asn	Trp	Thr	Leu	Arg 95
Leu	His	Asn	Val 100	Gln	Ile	Lys	Asp 105	Met	Gly	Ser	Tyr	Asp 110	Cys	Phe	Ile
Gln	Lys	Lys	Pro 115	Pro	Thr	Gly	Ser 120	Ile	Ile	Leu	Gln	Gln 125	Thr	Leu	Thr
Glu	Leu	Ser	Val 130	Ile	Ala	Asn	Phe 135	Ser	Glu	Pro	Glu	Ile 140	Lys	Leu	Ala
Gln	Asn	Val	Thr 145	Gly	Asn	Ser	Gly 150	Ile	Asn	Leu	Thr	Cys 155	Thr	Ser	Lys
Gln	Gly	His	Pro 160	Lys	Pro	Lys	Lys 165	Met	Tyr	Phe	Leu	Ile 170	Thr	Asn	Ser
Thr	Asn	Glu	Tyr 175	Gly	Asp	Asn	Met 180	Gln	Ile	Ser	Gln	Asp 185	Asn	Val	Thr
Glu	Leu	Phe	Ser 190	Ile	Ser	Asn	Ser 195	Leu	Ser	Leu	Ser	Phe 200	Pro	Asp	Gly
Val	Trp	His	Met 205	Thr	Val	Val	Cys 210	Val	Leu	Glu	Thr	Glu 215	Ser	Met	Lys
Ile	Ser	Ser	Lys 220	Pro	Leu	Asn	Phe 225	Thr	Gln	Glu	Phe	Phe 230	Ser	Pro	Gln
Thr	Tyr	Trp	Lys 235	Glu	Ile	Thr	Ala 240	Ser	Val	Thr	Val	Ala 245	Leu	Leu	Leu
Val	Met	Leu	Ile 250	Ile	Val	Cys	His 255	Lys	Lys	Lys	Pro	Asn 260	Gln	Pro	Ser
Arg	Phe	Ser	Asn 265	Thr	Ala	Ser	Lys 270	Leu	Glu	Arg	Asp	Ser 275	Asn	Ala	Asp

Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala
 230 295 300

Lys Pro Asn Ala Glu
 305

4210: 14

4211: 314

4212: PRT

4213: Mus musculus

4400: 14

Met Tyr Val Ile Lys Thr Cys Ala Thr Cys Thr Met Gly Leu Ala Ile
 1 5 10 15
 Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu
 20 25 30
 Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu Pro Lys Pro Phe Thr
 35 40 45
 Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp
 50 55 60
 Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu
 65 70 75 80
 Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn
 85 90 95
 Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile Lys Asp Met Gly Ser
 100 105 110
 Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu
 115 120 125
 Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro
 130 135 140
 Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu
 145 150 155 160
 Thr Lys Thr Ser Lys Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe
 165 170 175
 Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser
 180 185 190
 Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu
 195 200 205
 Ser Phe Pro Asp Gly Val Trp His Met Thr Val Val Cys Val Leu Glu
 210 215 220
 Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu
 225 230 235 240
 Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr
 245 250 255
 Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile Val Cys His Lys Lys
 260 265 270
 Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg
 275 280 285
 Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro
 290 295 300
 Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu
 305 310

4210: 15

4211: 303

0212: PRT

0213: Mus musculus

0400: 15

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Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp
 1      5      10      15
Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
 20      25      30
Pro Lys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val
 35      40      45
Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu
 50      55      60
Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr
 65      70      75      80
Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile
 85      90      95
Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr
100      105      110
Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala
115      120      125
Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn
130      135      140
Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro
145      150      155      160
Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp
165      170      175
Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser
180      185      190
Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val
195      200      205
Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu
210      215      220
Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile
225      230      235      240
Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile
245      250      255
Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala
260      265      270
Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu
275      280      285
Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu
290      295      300

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0210: 16

0211: 356

0212: PRT

0213: Mus musculus

0400: 16

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Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
 1      5      10      15
Asp Arg Gly Pro His Tyr Lys Ile Leu Leu Pro Leu Pro His Lys Gly
 20      25      30
Trp Thr Pro Gly Leu Thr His Asn Ala Ser Leu Tyr Cys Ala Ser Ile

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:4400: 17
Met Ala Lys Thr Ile Arg Arg Leu Ser Val Ala Phe Leu Thr Leu Ser
  1          5          10          15
Asp Arg Gly Pro His Tyr Lys Ile Leu Leu Pro Leu Pro His Lys Gly
      20          25          30
Trp Thr Pro Gly Leu Thr His Asn Ala Ser Leu Tyr Cys Ala Ser Ile
      35          40          45

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Ile Leu Lys Asn Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val
 50 55 60
 Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn
 65 70 75 80
 Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser
 85 90 95
 Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu
 100 105 110
 Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys
 115 120 125
 Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu
 130 135 140
 His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln
 145 150 155 160
 Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu
 165 170 175
 Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln
 180 185 190
 Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln
 195 200 205
 Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr
 210 215 220
 Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu
 225 230 235 240
 Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val
 245 250 255
 Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile
 260 265 270
 Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr
 275 280 285
 Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val
 290 295 300
 Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg
 305 310 315 320
 Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg
 325 330 335
 Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys
 340 345 350
 Pro Asn Ala Glu
 355

02110: 18

02111: 309

02112: FRT

02113: Mus musculus

04000: 18

Met Asp Pro Arg Cys Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr
 1 5 10 15
 Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe
 20 25 30
 Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile
 35 40 45
 Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val

50		55		60
Leu Tyr Glu His Tyr	Leu Gly Thr Glu Lys	Leu Asp Ser Val Asn Ala		
65	70	75	80	
Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg				
	85	90	95	
Leu His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile				
	100	105	110	
Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr				
	115	120	125	
Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala				
	130	135	140	
Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys				
145	150	155	160	
Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser				
	165	170	175	
Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr				
	180	185	190	
Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly				
	195	200	205	
Val Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys				
	210	215	220	
Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln				
225	230	235	240	
Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu				
	245	250	255	
Val Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser				
	260	265	270	
Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp				
	275	280	285	
Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala				
	290	295	300	
Lys Pro Asn Ala Glu				
305				

EF10 - 19

EF11 - 314

EF12 - PRT

EF13 - Mus musculus

EF400 - 19

Met Tyr Val Ile Lys Thr Cys Ala Thr Cys Thr Met Gly Leu Ala Ile				
1	5	10	15	
Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu				
	20	25	30	
Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr				
	35	40	45	
Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp				
	50	55	60	
Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu				
65	70	75	80	
Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn				
	85	90	95	
Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile Lys Asp Met Gly Ser				
	100	105	110	

Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu
 115 120 125
 Gln Glu Thr Leu Thr Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro
 130 135 140
 Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu
 145 150 155 160
 Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe
 165 170 175
 Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser
 180 185 190
 Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu
 195 200 205
 Ser Phe Pro Asp Gly Val Trp His Met Thr Val Val Lys Val Leu Glu
 210 215 220
 Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu
 225 230 235 240
 Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr
 245 250 255
 Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile Val Lys His Lys Lys
 260 265 270
 Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg
 275 280 285
 Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro
 290 295 300
 Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu
 305 310

0210 - 10

0211 - 203

0212 - PRT

0213 - Mus musculus

0400 - 10

Met Gly Leu Ala Ile Leu Ile Phe Val Thr Val Leu Leu Ile Ser Asp
 1 5 10 15
 Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
 20 25 30
 Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val
 35 40 45
 Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu
 50 55 60
 Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr
 65 70 75 80
 Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile
 85 90 95
 Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr
 100 105 110
 Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala
 115 120 125
 Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn
 130 135 140
 Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro
 145 150 155 160
 Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp

	165		170		175
Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser					
	180		185		190
Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val					
	195		200		205
Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu					
	210		215		220
Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Lys Glu Ile					
225		230		235	240
Thr Ala Ser Val Thr Val Ala Leu Leu Leu Val Met Leu Leu Ile Ile					
	245		250		255
Val Cys His Lys Lys Pro Asn Gln Pro Ser Arg Pro Ser Asn Thr Ala					
	260		265		270
Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp Arg Glu Thr Ile Asn Leu					
	275		280		285
Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala Lys Pro Asn Ala Glu					
	290		295		300

SI10 - 21

SI11 - 1424

SI12 - DNA

SI13 - Homo sapiens

SI400 - 21

aggagcctta	ggaggtacgg	ggagctcgca	aatactcctt	ttggttttatt	cttaccacct	50
agcttcctgg	tcctctggga	atgctgctgt	gottatgpat	ctggctctctt	tttggagcta	100
cagtggaacg	gcattcttga	cagcaactatg	ggaactgagta	acattctctt	tgtgatggcc	150
ctctctgctt	ctgggtgctg	tcctctgaag	attcaagctt	atttcaatga	gactgcagac	200
ctgcctatgc	aattttgaaa	ctctcaaaaac	caaagcttga	gtgagctagt	agtatttttg	250
caggacacgg	aaaacttggg	tctgaatgag	gtatacttag	gcacagagaa	atttgacagt	300
gtctcttcca	agtatatggg	ccgcacaagt	tttgattcgg	acagttggac	cctgagactt	350
caacaattctt	agatcaagga	caagggtctt	tatcaatgta	tcattccatca	caaaaagccc	400
acaggaatga	ttcggatcca	ccagatgaat	tctgaactgt	cagtgccttg	taacttcagt	450
caacttgaaa	tagtaaccaat	ttctaatata	acagaaaatg	tgtacataaa	tttgacctgc	500
ctattctatc	acgggttaacc	agaacctaa	aagatgagtg	ttttgctaa	aaccaagaat	550
ctaaactatg	agtatgatgg	tattatgcag	aaatctcaag	ataatgtcac	agaactgtac	600
gaggttttca	tcagcttgct	tgtctcattc	cctgatgtta	cgagcaatat	gacbatcttc	650
ctgattcttg	aaaactgacaa	gaaggcgctt	ttatcttcaa	ctttctctat	agagcttgag	700
gacccctcag	ctcccccaga	ccacattcct	tggattacag	ctgtacttcc	aacagttatt	750
atatctctga	tggttttctg	tctaattcta	tggaaatgga	agaagaagaa	ggggcctcgc	800
gactcttata	aatgttggaac	caacacaatg	gagaggggaa	agagtgaaca	gaccaagaaa	850
agagaacaaa	tcacataaac	tgaaagatct	gatgaagccc	agcgtgtttt	taaaagtctg	900
agagacattt	catgcgacaa	aagtgataca	tgtttttaat	taaagagtaa	agcccataca	950
agtatttcatt	ttttctaccc	tttcttttgt	aagttcctgg	gcaacctttt	tgattttctc	1000
cagatggcaa	aaagacatta	ccatgagtaa	taagggggct	ccaggactcc	ctctaagtgg	1050
aataccctcc	ctgtaactcc	agctctgctc	cgtatgcocaa	gaggagactt	taattctctt	1100
actgcttctt	ttcacttcag	agcacactta	tgggcacaagc	ccagcttaat	ggctcatgac	1150
ctggcaaaaa	aatttaggac	caataaaaaa	aaaaaaaaaa	aaaa		1200
						1424

SI100 - 27

SI110 - 213

SI120 - PHT

SI130 - Homo sapiens

M400: 22

Met Gly Leu Ser Asn Ile Leu Phe Val Met Ala Phe Leu Leu Ser Gly
 1 5 10 15
 Ala Ala Pro Leu Lys Ile Gln Ala Tyr Phe Asn Glu Thr Ala Asp Leu
 20 25 30
 Pro Tyr Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val
 35 40 45
 Val Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu
 50 55 60
 Gly Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Gly Arg Thr
 65 70 75 80
 Ser Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile
 85 90 95
 Lys Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr
 100 105 110
 Gly Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala
 115 120 125
 Asn Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn
 130 135 140
 Val Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro
 145 150 155 160
 Lys Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr
 165 170 175
 Asp Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp
 180 185 190
 Val Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met
 195 200 205
 Thr Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser
 210 215 220
 Pro Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile
 225 230 235 240
 Pro Trp Ile Thr Ala Val Leu Pro Thr Val Ile Ile Cys Val Met Val
 245 250 255
 Phe Lys Leu Ile Leu Trp Lys Trp Lys Lys Lys Arg Pro Arg Asn
 260 265 270
 Ser Tyr Lys Cys Gly Thr Asn Thr Met Glu Arg Glu Glu Ser Glu Gln
 275 280 285
 Thr Lys Lys Arg Glu Lys Ile His Ile Pro Glu Arg Ser Asp Glu Ala
 290 295 300
 Gln Arg Val Phe Lys Ser Ser Lys Thr Ser Ser Cys Asp Lys Ser Asp
 305 310 315 320
 Thr Cys Phe

M10: 13

M11: 1183

M12: DNA

M13: Mus musculus

M400: 23

ggagcaagca gacgcgtaag agtggctcct gtatggcagca cggacttgaa caaccagact 60
 octgtagacg tgttccagaa cttaacggaag caccacagat ggaccccaga tgcaccatgg 120
 gcttggcaat ccttatcttt gtacagctct tgcctgatctc agatgctgtt tccgtggaga 180
 cgcaagotta tttcaatggg actgcatact tgcctgccc atttacaag gctcaaaaca 240

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taagcctgag tgagctggta gtattttggc aggaccagca aaagttgggt ctgtacgagc 300
actattttggg cacagagaaa cttgatagtg tgaatgcaaa gtacctgggc cgcacgagct 360
ttgacaggaa caactggact ctacgacttc acaatgttca gatcaaggac atgggctcgt 400
atgattgttt tatabaaaaa aagccaccca caggatcaat tatcctccaa cagacattaa 460
cagaactgtc agtgatcgcc aacttcagtg aacotgaaat aaaaatggct cagaatgtaa 520
caggaaaattc tggcataaat ttgacctgca cgtctaagca aggtcacccg aaacctaaga 580
agatgtattt tctgataact aattcaacta atgagtatgg tgataacatg cagatatcac 640
aagataatgt cacagaactg ttcagtatct caaacagcct ctctcttcca ttccgggatg 700
gtgtgtggga tatgacctt gtgtgtgttc tggaaaagg gtaatgaag atttctccaa 760
aacctctcaa tttactcaa gattttccat ctctccaaac gtattggaag gagattacag 820
cttcagttaa tctggccctc ctcttggga tctgtctcat cattgtatgt cacaagaagc 880
cgaatcagcc taggcagccc agaacacag cctctaatgt agagcgggat agtaacgctg 940
acagagagac tatcaacctg aaggaaactg aaccccaaat tgcctcagca aaaccaatg 1000
cagagtgaag gcagtgaag cctgaggaaa gaggtaaaaa ttgctttgcc tgaataaga 1060
agtgcagagt tctcagaat tcaaaaatgt tctcagctga ttggaattct acagttgaat 1120
aattaaagaa caaatacac aacagtgaac aaaaaaaaaa aaa 1180

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0210 - 24

0211 - 209

0212 - FRP

0213 - Mus musculus

0400 - 14

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Met Asp Pro Arg Cys Thr Met Gly Leu Ala Ile Leu Ile Phe Val Thr
1 10 15
Val Leu Leu Ile Ser Asp Ala Val Ser Val Glu Thr Gln Ala Tyr Phe
20 25 30
Asn Gly Thr Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile
35 40 45
Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val
50 55 60
Leu Tyr Glu His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala
65 70 75 80
Lys Tyr Leu Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg
85 90 95
Leu His Asn Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile
100 105 110
Gln Lys Lys Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr
115 120 125
Glu Leu Ser Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala
130 135 140
Gln Asn Val Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys
145 150 155 160
Gln Gly His Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser
165 170 175
Thr Asn Glu Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr
180 185 190
Glu Leu Phe Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly
195 200 205
Val Trp His Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys
210 215 220
Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln
225 230 235 240
Thr Tyr Trp Lys Glu Ile Thr Ala Ser Val Thr Val Ala Leu Leu Leu

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	245		250		255
Val Met Leu Leu Ile Ile Val Cys His Lys Lys Pro Asn Gln Pro Ser					
	260		265		270
Arg Pro Ser Asn Thr Ala Ser Lys Leu Glu Arg Asp Ser Asn Ala Asp					
	275		280		285
Arg Glu Thr Ile Asn Leu Lys Glu Leu Glu Pro Gln Ile Ala Ser Ala					
	290		295		300
Lys Pro Asn Ala Glu					
305					

KL10: 15

KL11: 1112

KL12: DNA

KL13: Homo sapiens

KL00: 15

acacaggtga	aagcttttgt	tctctgtgtc	tqtaacaggg	actagacacag	acacacggat	50
gagtaggggc	atttcacagat	attaggttac	agcagaagca	gcacaaatgg	atccccagtg	100
actatggga	ctgagtaaca	ttctcttctt	gatgggtctc	ctgtctctct	gtgtgtgtcc	150
tctgaagatt	caagcttatt	tcaatgagac	tgcagacctg	ccatgccaat	ttgcacactc	200
tcacaaacca	agcttgagtg	agcttagtgt	attttggcag	gacbaggaat	acttggttct	250
gaatgaggtt	taattaggca	aaagagaaat	tgacagtgtt	cattcccaag	atatggggcc	300
cacaagtttt	gattcggaca	gttggacctt	gagaattcac	aattcttcaga	tcacaggaca	350
gggtctgtat	caatgtatca	tccttcacaa	aaagcccaca	ggaatgatto	gcctccacca	400
gatgaattct	gaactgtcag	tgcttgctaa	cttcagtcac	cttgaaatag	tcaccaattc	450
taataataca	gaaaatgtgt	acataaaatt	gacctgtctc	tcctatacac	gtcaccacga	500
acctaagaag	atgagtgttt	tgtaagaac	caagaattca	actatcgagt	atgatgttat	550
tatgcacaaa	tctcaagata	atgtcacaga	actgtacgac	gtttccatca	gcttgtctgt	600
ttcaatctct	gatgttaaga	gcaatatgag	catctctctt	attctggaaa	ctgacaagac	650
gggtcttita	tcttcacctt	tcctatatga	gcttgaggac	cttcagcttc	ccccagacca	700
catctcttgg	attacagctg	taattccaac	agttactata	tgtgtgatgg	ctttctgtct	750
aattctatgg	aaatggaaga	agaagaagcg	gcttcgcaac	tcctataaat	gtggaaccaa	800
cccaattggg	agggaaagaga	gtgaacagac	caagaaaaaa	gaaaaaatcc	atatacttga	850
agaaatgat	gaagcccagc	gtttttttaa	aagttogaag	acatcttcat	gagacaaaag	900
tcatacatgt	tcttaattaa	agtgtaaaag	cc			950
						1000
						1050
						1100
						1112

KL10: 16

KL11: 109

KL12: FET

KL13: Homo sapiens

KL00: 16

Met Asp Pro Gln Cys Thr Met Gly Leu Ser Asn Ile Leu Phe Val Met																
1		5				10					15					
Ala Phe Leu Leu Ser Gly Ala Ala Pro Leu Lys Ile Gln Ala Tyr Phe																
	20					25					30					
Asn Glu Thr Ala Asp Leu Pro Cys Gln Phe Ala Asn Ser Gln Asn Gln																
	35					40					45					
Ser Leu Ser Glu Leu Val Val Phe Trp Gln Asp Gln Glu Asn Leu Val																
	50					55					60					
Leu Asn Glu Val Tyr Leu Gly Lys Glu Lys Phe Asp Ser Val His Ser																
	65					70					75					80
Lys Tyr Met Gly Arg Thr Ser Phe Asp Ser Asp Ser Trp Thr Leu Arg																
	85										90					95

Leu His Asn Leu Gln Ile Lys Asp Lys Gly Leu Tyr Gln Cys Ile Ile
 100 105 110
 His His Lys Lys Pro Thr Gly Met Ile Arg Ile His Gln Met Asn Ser
 115 120 125
 Glu Leu Ser Val Leu Ala Asn Phe Ser Gln Pro Glu Ile Val Pro Ile
 130 135 140
 Ser Asn Ile Thr Glu Asn Val Tyr Ile Asn Leu Thr Cys Ser Ser Ile
 145 150 155 160
 His Gly Tyr Pro Glu Pro Lys Lys Met Ser Val Leu Leu Arg Thr Lys
 165 170 175
 Asn Ser Thr Ile Glu Tyr Asp Gly Ile Met Gln Lys Ser Gln Asp Asn
 180 185 190
 Val Thr Glu Leu Tyr Asp Val Ser Ile Ser Leu Ser Val Ser Phe Pro
 195 200 205
 Asp Val Thr Ser Asn Met Thr Ile Phe Cys Ile Leu Glu Thr Asp Lys
 210 215 220
 Thr Arg Leu Leu Ser Ser Pro Phe Ser Ile Glu Leu Glu Asp Pro Gln
 225 230 235 240
 Pro Pro Pro Asp His Ile Pro Trp Ile Thr Ala Val Leu Pro Thr Val
 245 250 255
 Ile Ile Cys Val Met Val Phe Cys Leu Ile Leu Trp Lys Trp Lys Lys
 260 265 270
 Lys Lys Arg Pro Arg Asn Ser Tyr Lys Cys Gly Thr Asn Thr Met Glu
 275 280 285
 Arg Glu Glu Ser Glu Gln Thr Lys Lys Arg Glu Lys Ile His Ile Pro
 290 295 300
 Glu Arg Ser Asp Glu Ala Gln Arg Val Phe Lys Ser Ser Lys Thr Ser
 305 310 315 320
 Ser Cys Asp Lys Ser Asp Thr Cys Phe
 325